UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,011	08/26/2003	Amit Kalhan	UTL 00290	5935

32968	7590	07/06/2005

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EXAMINER
PHUONG, DAI

ART UNIT	PAPER NUMBER
2685	

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *26 August 2003*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-31* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-5 and 17-19* is/are rejected.

7) ☒ Claim(s) *6-16 and 20-31* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *26 August 2003* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some *   c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date ~~08-26-2003~~.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-3, 5 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Wieczorek et al. (U.S. 6,125,278).

        Regarding claim 1, Wieczorek et al. disclose a mobile wireless communications system, a

method for determining when to exit an existing wireless communications coverage network, the

method comprising: compiling a history of device geographical location data (col. 3, lines 59-

64); and, in response to the history of geographical location data, exiting the existing coverage

network 302 (fig. 4, col. 3, lines 50-64. Notice that, when the subscriber unit 401 is within the

coverage region 302, it sends a number of location history information to the system in order to

determine the subscriber unit 401 is going to move or exit from existing coverage region 302 to

the next coverage region 304, please see fig. 4). **However, Wieczorek et al. do not disclose in**

a mobile wireless communications device, a method for determining when to exit an

existing wireless communications coverage network. It would have been obvious to one of

ordinary skill in the art to modify Wieczorek et al. by having the mobile wireless

communication device determine when to exit an existing wireless communication coverage

network, since the technique described by Wieczorek et al. would perform equally well if

operated at the system or device.

Regarding claim 2, Wieczorek et al. disclose all the limitation in claim 1. Further, Wieczorek et al. disclose the method wherein compiling a history of geographical location data includes: compiling accumulative data regarding device geographical location (col. 4, lines 6-17); and, comparing the accumulative data (location history information) to a predetermined terminal value (map data) (col. 4, lines 6-10).

Regarding claim 3, Wieczorek et al. disclose all the limitation in claim 2. Further, Wieczorek et al. disclose the method wherein compiling accumulative data regarding device geographical location includes: supplying the device geographical position (col. 3, lines 26-31); measuring the position of each sample point with respect to a predetermined threshold boundary line (map data) (col. 4, lines 6-10); and, performing a mathematical function in response to measuring position (col. 4, lines 10-17).

Regarding claim 5, Wieczorek et al. disclose all the limitation in claim 3. Further, Wieczorek et al. disclose the method wherein performing a mathematical function in response to measuring position includes maintaining a running sum in response to measuring position (col. 4, lines 10-17).

Regarding claim 17, Wieczorek et al. disclose all the limitation in claim 1. Further, Wieczorek et al. disclose the method further comprising: compiling information regarding coverage areas for a plurality of wireless communications coverage networks within, overlapping, and proximate the existing wireless communications coverage network (col. 3, lines 50-64); and, wherein determining the threshold boundary line includes using the compiled information to determine threshold boundary lines between the existing coverage network and the plurality of coverage networks (col. 4, lines 6-17).

Regarding claim 18, Wieczorek et al. disclose all the limitation in claim 1. Further, Wieczorek et al. disclose the method wherein exiting the existing coverage network 302 includes entering a second coverage network 304 (fig. 4, col. 3, lines 50-64. Notice that, when the subscriber unit 401 is within the coverage region 302, it sends a number of location history information to the system in order to determine the subscriber unit 401 is going to move or exit from existing coverage region 302 to the next coverage region 304, please see fig. 4) and re-configuring the wireless device from an existing coverage network operating system processor to a second coverage network operating system processor (col. 4, line 59 to col. 5, line 14).

Regarding claim 19, Wieczorek et al. disclose in a mobile wireless communications device, a system for determining when to exit an existing wireless communications coverage network, the system comprising: a locator 290 with a first output supplying device geographical sample positions (col. 3, lines 26-31); and, a calculator 260 with a first input connected to the locator 290 first output and an output supplying an exit control signal responsive to a history of device geographical sample positions (col. 3, lines 26-37) and a first predetermined threshold boundary line (map data) (col. 4, lines 6-10)

3.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wieczorek et al. (U.S. 6,125,278) in view of Khan (Pub. No: 2004/0203831)

Regarding claim 4, Wieczorek et al. disclose all the limitation in claim 3. But, Wieczorek et al. do not disclose the method wherein supplying the device geographical position includes periodically supplying the device geographical position.

In the same field of endeavor, Khan disclose the method wherein supplying the device geographical position includes periodically supplying the device geographical position ([0015]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the subscriber unit of Wieczorek et al. by specifically including supplying the device geographical position includes periodically supplying the device geographical position, as taught by Khan, the motivation being in order to predict a future position of the user before the user enters the target cell.

Reasons for Allowance

4.   The following is an examiner's statement of reasons for allowance:

Claims 6 and 20 are objected

Claims 7-16 are allowed as dependent on claim 6.

Claims 21-31 are allowed as dependent on claim 20.

Regarding claim 6

Claim 6 is objected to as being dependent upon a rejected base claim 1, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reason for the indication of allowance: the prior art made of record and considered pertinent to the applicant's disclosure does not disclose nor fairly suggest the method further comprising: determining the threshold boundary line; and, **using the threshold boundary line to partition, into first and second zones, an area including at least a portion of a coverage area for the existing coverage network and at least a portion of a coverage area for a second coverage network proximate the existing coverage network, the**

first zone proximate a first side of the threshold boundary line oriented toward the

geographical center for the existing coverage network and the second zone proximate a

second side of the threshold boundary line; wherein maintaining a running sum in response

to measuring position includes: decrementing the running sum for sample point positions

in the first zone; and, incrementing the running sum for sample point positions in the

second zone.

Regarding claim 20

Claim 20 is objected to as being dependent upon a rejected base claim 19, but would be

allowable if rewritten in independent form including all of the limitations of the base claim and

any intervening claims.

The following is a statement of reason for the indication of allowance: the prior art made

of record and considered pertinent to the applicant's disclosure does not disclose nor fairly

suggest the system wherein the calculator includes: a comparison circuit with: a first input

connected to the locator first input, the comparison circuit selecting the threshold boundary

line and measuring the difference between each device geographical sample position and

the first threshold boundary line in response to accepting device geographical sample

positions; and, first and second outputs to supply decrement and increment control signals,

respectively, in response to the comparison; a counting circuit with first and second inputs

connected to the comparison circuit first and second outputs, respectively, the counting

circuit performing a mathematical function responsive to accepting the decrement and

increment control signals and comparing a mathematical function result to a

predetermined terminal value; and, an output, connected to the calculator output, to

supply the exit control signal in response to the comparison.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Corkey (U.S. 6631263) cell hand-off border using MS position

Oh et al. (U.S. 6714789) handoff and capacity enhancement

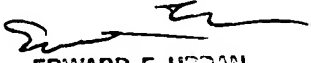Amano et al. (U.S. 6810325) position locating method

Mizui et al. (Pub. No: 20040198254) mobile body communication device

6.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The
examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Edward Urban can be reached on 703-305-4385. The fax phone number for the
organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent
Application Information Retrieval (PAIR) system. Status information for published applications
may be obtained from either Private PAIR or Public PAIR. Status information for unpublished
applications is available through Private PAIR only. For more information about the PAIR
system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR
system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dai Phuong
AU: 2685
Date: 06-09-2005

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